

			Sign Su	Sign Summar	
			M.U.T.C.D. Number	Specifica Width F	
				12"	
			R7-8P	12"	
			SP-1	12"	
			SP-2	12"	
			SP-3	12"	
			SP-4	12"	
			SP-5	12"	
			SP-6	12"	
			R5-1	30"	
SP-6 BOLLARD MOUNTED R7-8 ACR TYPE D-D BOLLARD MOUNTED R7-8 & R7-8P BOLLARD MOUNTED R7-8 & R7-8P CARD R7-8 & R7-8 &	HEPP HENT HENT HENT HENT HA HA HO HA HA HA HA HA HA HA HA HA HA HA HA HA	8' CONCRETE D FOR ULPTURE 205,4 A CONCRETE SIDEW SETBACK 205,4 A CONCRETE SIDEW SETBACK A CONCRETE SIDEW SETAA SIDEW SETAA SIDEW SETAA SIDEW SETAA SIDEW SETAA SIDEW SETAA SIDEW SETAA SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW SIDEW	NG TREE TR	PROX. LOCATION BENCH UN METAL PER PROX. LOCATION BUS STOP PICH N/F ARD BERTOL B, LOT 21 BC 5007, PAGE 2	
AREA FOR LEQUIPMENT GH ENCLOSURE LIMIT OF BIKE ENCLOSURE LEQUIPMENT GH ENCLOSURE (12 BIKES)	8' 8.2' - CONCRETE SEA WALL W/ WOO BENCH (TYP)	D A TYP) VE VS (TYP) VE	T IN INCOMENTATION IN INCOMENTATIONI INCOMENTATION IN INCOMENTATION INTERVALUENTI IN INTERVALUENTI INTERVALUENTI INTERVALUEN	FLOW ARROWS SHOWN FOR REFERENCE ON EXISTI ISLAN	
FLOOR AND GARAGE SHOWN FOR CE ONLY; REFER TO CTURAL PLANS		ACR OIL	- 7'x14' GENERATOR PAD - STANDARD DUTY PAVEMEN'	— 10'x15' STOR. T (TYP)	

5' PARKING SETBACK — SIDEWALK TO CONNECT TO ABUTTING PROPERTY; BREAK IN FENCE TO BE COORDINATED WITH ABUTTING PROPERTY OWNER

CHAIN LINK FENCE; MATCH EXISTING —

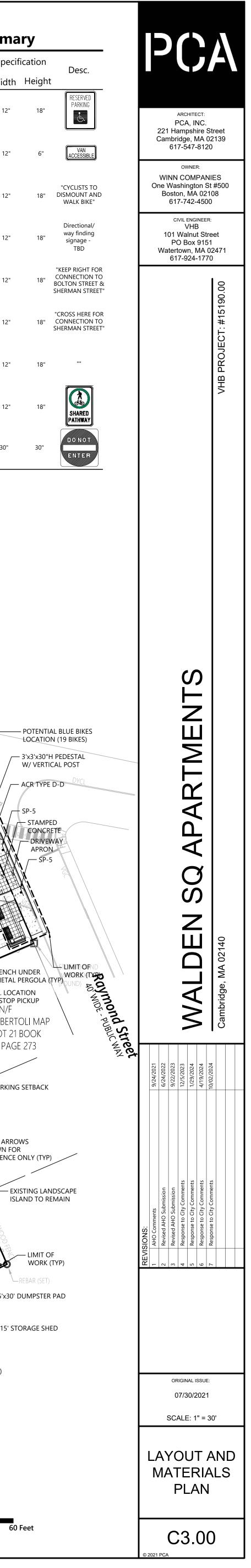
CONCRETE SIDEWALK (TYP) BOLLARD @ 9' O.C. (TYP)

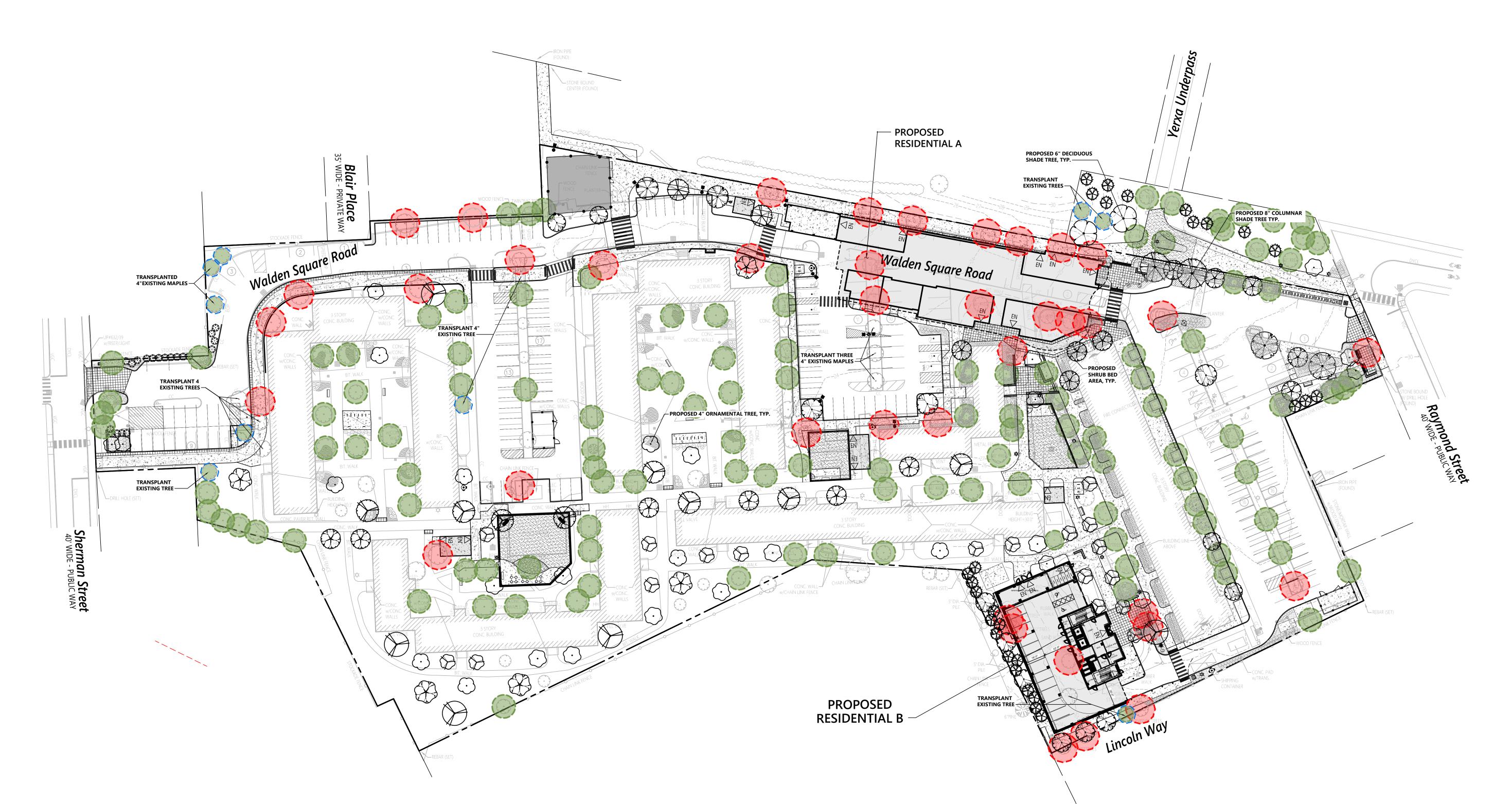
" 18"/20 incoln Way

5' PARKING SETBACK



CONCRETE SIDEWALK (TYP)





Symbol Key

 $\left\{ \cdot \right\}$ \bigotimes \bigotimes BS

EXISTING TREES TO BE PRESERVED

EXISTING TREES TO BE REMOVED

TRANSPLANTED EXISTING TREES

PROPOSED 6" DECIDUOUS SHADE TREES

PROPOSED 4" DECIDUOUS SHADE TREES

PROPOSED 4" ORNAMENTAL TREES

PROPOSED 3" ORNAMENTAL TREES

PROPOSED 12' HT EVERGREEN TREE (4" CAL.)

PROPOSED 7' HT EVERGREEN TREE (2" CAL.)

LONG TERM BIKE SHELTER

SHORT TERM BIKE RACK BR

Tree Removal / Replacements

39 TREES TO BE REMOVED 586 CALIPER INCHES OF TREES TO BE REMOVED

20 TREES * HAVE BEEN DONATED AND INSTALLED ** 40 CAL. INCHES 546 CALIPER INCHES REQ.

* 2" CALIPER ASSUMED ** 6 DONATED TREES NOT FOUND

152 PROPOSED TREES

- **4" DECIDUOUS SHADE TREES** 51 **6" DECIDUOUS SHADE TREES**
- **3" ORNAMENTAL TREES** 21
- **4" ORNAMENTAL TREES**
- 12' HT. EVERGREEN TREES 28 20 6' HT. EVERGREEN TREES

TOTAL

204 CAL. IN. 36 CAL. IN 63 CAL IN. 96 CAL. IN. 112 CAL. IN. 40 CAL. IN.

547 CALIPER INCHES PROPOSED

Bike Parking Summary Chart

Description	Size	Capacity
BIKE SHELTER 1	16 x 13	6
BIKE SHELTER 2	16 x 28	16
BIKE SHELTER 3	16 x 13	6
BIKE SHELTER 4	16 x 25	14
BIKE ENCLOSURE IN BUILDING A	18 x 30	20
BIKE ENCLOSURE IN BUILDING B	15 x 21	12
EXTERIOR BIKE RACKS		10
TOTAL SPACES		84

AHO REQUIREMENTS:

1.00 space per unit for the first 20 units in a building. 1.05 spaces per unit for additional units. Building A: 54 Units 20+36 = 56 required Building B: 42 Units 20+24 = 44 required Required Long Term Bicycle Spaces = 98 Spaces 72 Spaces*

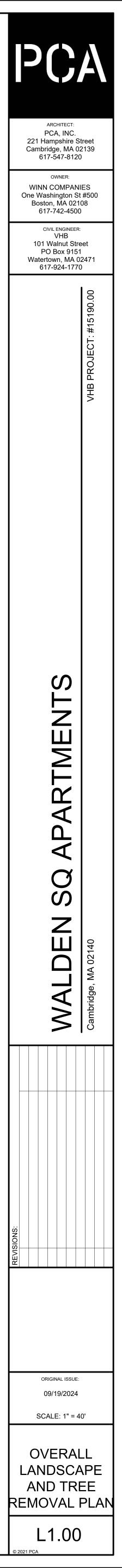
*includes 28-space reduction per Section 11.207.6.4 of the AHO zoning bylaws

Required Short Term Bicycle Spaces = 10 Spaces

10 Provided

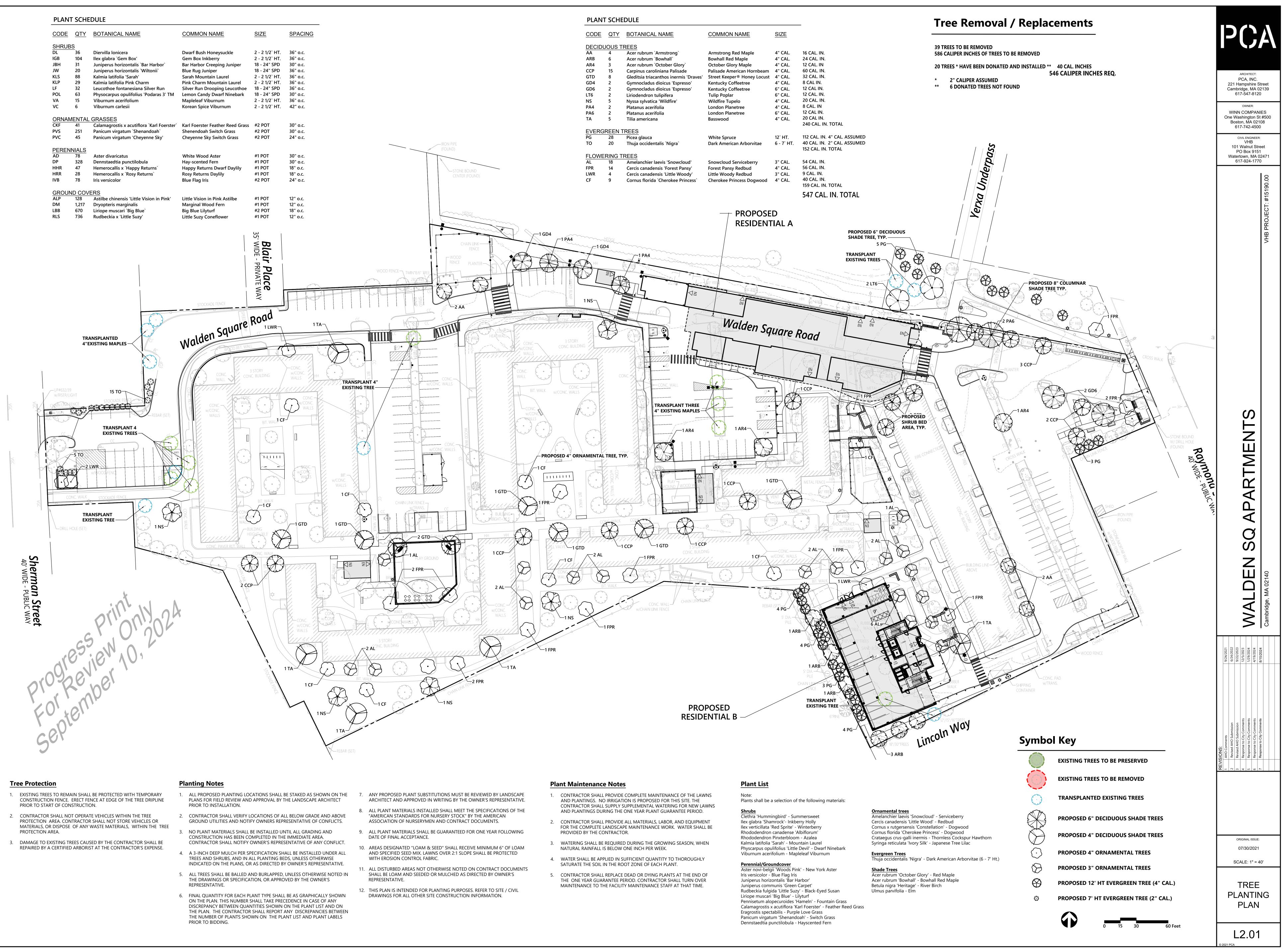


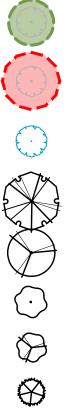




74 Provided

80 Feet

















West End Yards









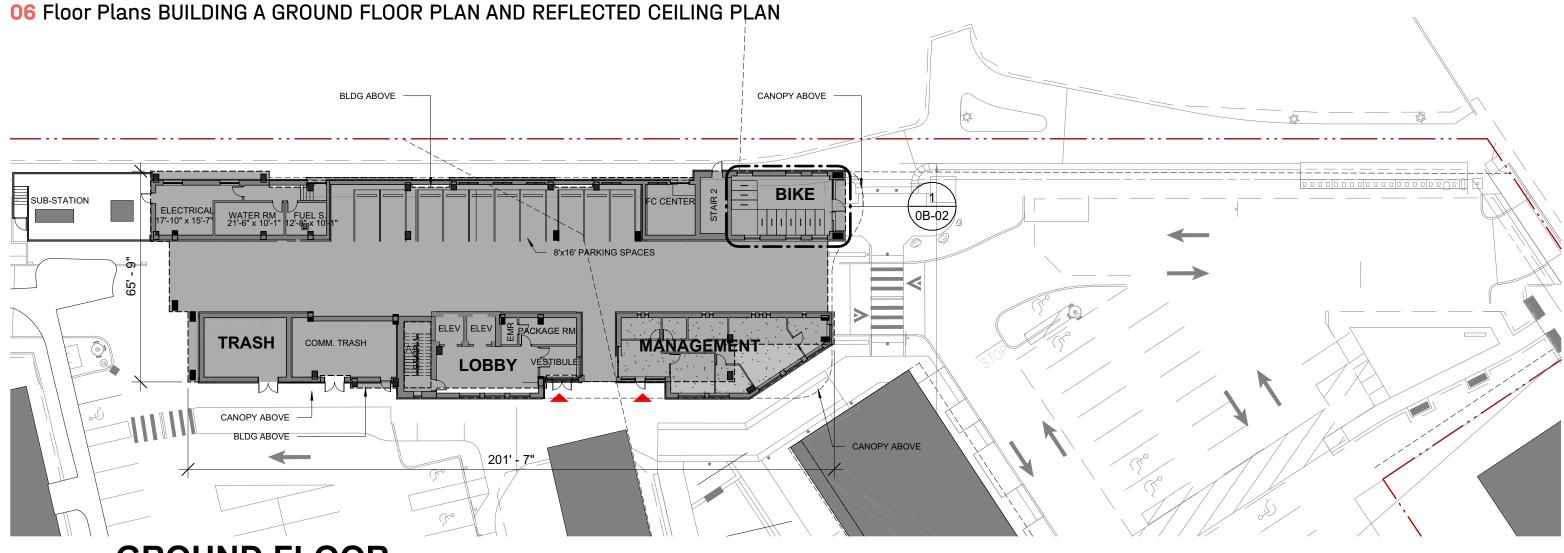


Hattie Kelton Apartments

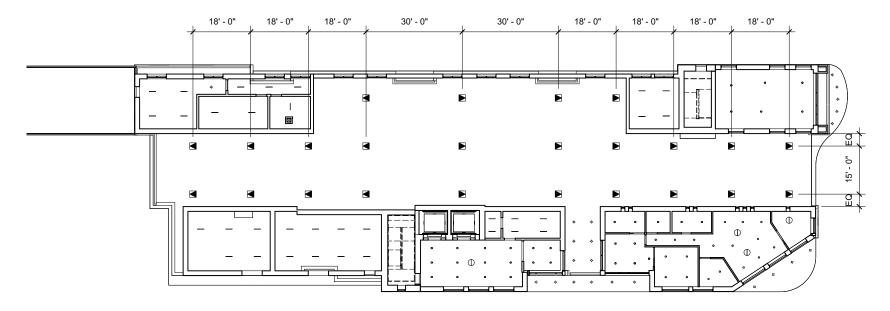


Edge

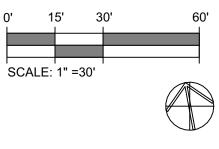
900 Beacon Ave.



GROUND FLOOR



GROUND FLOOR RCP



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Proposed Bike Shelters Walden Square Apartments Cambridge, MA

SECTION 10 73 43

BICYCLE SHELTERS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Bicycle shelter(s) – Haven Model

1.2 **REFERENCES**

- A. ASTM A 1008/A Standard Specification for Steel Bars, Carbon and Alloy, Cold-Finished.
- B. ASTM B 209 Standard Specification for Aluminum and Aluminum-alloy Sheet and Plate.
- C. ASTM B 221 Standard Specification for Aluminum and Aluminum-alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
- D. ASCE 7-05 Minimum Design Loads for Buildings and Other Structures.
- E. ICC/ANSI A 117.1 Accessible and Usable Buildings and Facilities.
- F. IBC International Building Code.
- G. Americans with Disabilities Act of 1990 (ADA). As amended by Public Law 101-336 (2009)
- H. AISC Publications:
 - 1. Code of Standard Practice for Steel Buildings and Bridges.
 - 2. Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings, including Commentary.
 - 3. Structural Welding Code Steel.

1.3 DESIGN REQUIREMENTS

- A. Basic Wind Speed: ____ mph. Upgrades available to meet all hurricane zone requirements.
- B. Exposure Category: ____: Upgrades available to meet all exposure categories.
- C. Basic Snow Load: ____ psf. Upgrades available to meet all snow load requirements.
- D. Seismic Design per local codes. Upgrades available to meet any zone requirement.
- E. Column to concrete footing / concrete pad connection to be in compliance with OSHA Steel Erection Standard CFR which requires a minimum of four (4) anchor bolts per column.
- F. No onsite welding shall be required or permitted.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's product data, including materials, components, finish and all accessories and equipment furnished.

- B. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections and details, dimensions, anchorage, fasteners and locations, flashing and seal details if applicable, finish, and options.
- C. Erection Drawings: Submit manufacturer's instructions and drawings, and develop erection procedures to enable field installation and repair.
- D. Manufacturer's Project References: Submit list of completed projects including project name and location and type of shelters manufactured.
- E. Warranty: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Continuously engaged in Steel Shelter manufacturing with a minimum of 10 years successful experience.
 - 2. Able to demonstrate successful performance on comparable projects.
 - 3. Responsible for all components, including structural design.
 - 4. All welding performed by AWS certified welders and inspected by AWS certified inspectors.
- B. Installer's Qualifications:
 - 1. Authorized by manufacturer to install Shelters.
 - 2. Trained by manufacturer' standard training methods and policies.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name, manufacturer, and location of installation with detailed written instructions for installation.
- B. Storage: Store materials in a clean, dry area indoors in accordance with manufacturer's instructions.
- C. Inspect for concealed damage within 48 hours of delivery and compare manufacturer's bill of lading / packing list and report any missing items to the manufacturer within this time.

1.7 WARRANTY

A. Warranty Period: One year starting on date of substantial completion.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. "Haven" model, 10' x 18', 10' x 24', 10' x 27', 10' x 36', 10' x 48', 12' x 18', 12' x 24', 12' x 27', 12' x 36', 12' x 48', 16' x 18', 16' x 24', 16' x 27', 16' x 36' or 16' x 48' by Duo-Gard Industries, 40442 Koppernick Road, Canton, Michigan 48187. Phone (734) 207-9700. Fax (734) 207-7995. Web Site <u>www.duo-gard.com</u>. E-Mail <u>info@duo-gard.com</u>.

B. Substitutions must be approved ten (10) days prior to the bid date. Alternate providers must provide complete product drawings as well as proof of equivalency of the pretreatment and Tnemec finish system. Powder coating will not be an acceptable alternative. Please forward complete information, including testing information to meet ASTM requirements, for the requested finishing procedures.

2.2 Glazing

- A. Window panels shall be: 1/4" thick tempered safety glass. Panels shall be gasketed with wraparound pvc extrusion, and secured to the framing structure with special extrusions to provide a safe weather-protective enclosure. Window color shall be: clear.
- B. Wall and roof panels shall be sealed as required to provide a water-proof barrier in compliance with Fed. Spec. II-S-001657 using ASTM C-920-79 sealants.

2.3 Fabricated Aluminum Shelters

- A. Shelters A pre-engineered and prefabricated framed shelter(s), columns, rafters, purlin structure with roof panels, trim, flashing, fasteners and accessories needed for complete installation.
- B. The shelter framing, glazing trim and associated components shall be fabricated using 6063-T5 extruded aluminum members Fed. Spec. QQ-A-200/9C(1). 6061-T6 and 6005-T6 alloy/temper shall be used where required. Finished to match.
- C. Fasteners:
 - 1. Roof framing, accessories, amenities, wall / roof trim: stainless steel or aluminum.
 - 2. Structural/frame connections: stainless steel or aluminum.
 - 3. Anchoring: Aluminum anchor shoes with wedge anchor bolts or adhesive anchors.
 - 4. Fasteners ¹/₄" dia. and smaller: finished to match at factory (as req'd).
 - 5. Fasteners 5/16" dia. and larger: to remain unfinished in completed product, or painted in field.
- E. Roof sheathing/glazing shall be shall be: translucent polycarbonate structured sheet or standing seam metal (choose one).
 - 1. Translucent polycarbonate structured sheet: 8mm multi-wall polycarbonate sheet. Edges and joints to be trimmed with extruded aluminum glazing system, finished to match. Polycarbonate tint to be: clear, bronze, opal, other: _____ (choose).
 - 24 gauge standing seam galvalume steel panels color to be selected from roof color guide. Aluminum Panels, standard thickness is .032, are available in limited colors:
 _____ (choose).
- F. Joint Sealant:
 - 1. Factory-Applied Sealant: Gunnable, non-hardening, elastomeric sealant. ASTM C 920, Type S, Class 12, Grade NS. Fed Spec TT-S-1657, Type 1.n.
 - 2. Field-Applied Sealant: As approved by the shelter manufacturer.
- G. Field Fasteners:
 - 1. Comply with shelter manufacturer's instructions for fastener types, quantities, and usage. Substitutions are not permitted.
- H. Shelter fabrication and all components must meet Buy America Requirements.

2.4 Accessories

A. LED Solar Lighting, or grid tied LED lighting, are available as a standard offering. Other types of light fixtures are available. Please contact the manufacturer for additional information.

2.5 COLOR AND FINISH

- A. Aluminum framework finish shall be:
 - 1. Class 1 anodized in accordance with the Aluminum Association. Color: dark bronze, or clear anodized ______ (choose).
 - 2. Powder coat painted to meet AAMA 2604 specifications. Color to be _____ (choose).

PART 3 EXECUTION

3.1 EXAMINATION

- A. When unloading you will typically need a fork lift, with fork extenders. When uncrating handle all materials carefully to avoid scratching the finish. Note any visible damage on bill of lading. Concealed damage shall be reported to the manufacturer within 48 hours of delivery.
- B. Examine areas to install shelters. Notify Architect of conditions that would adversely affect installation. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 **PREPARATION**

A. Ensure location to receive shelter is clean, flat, level, plumb, square, accurately aligned, and correctly located.

3.3 INSTALLATION

A. The manufacturer shall provide installation instructions complete with diagrams. Installation shall be performed by the manufacturer or his representative (option). The manufacturer shall guarantee the installation for a period of one (1) year, when performed by the manufacturer, from the date of acceptance.

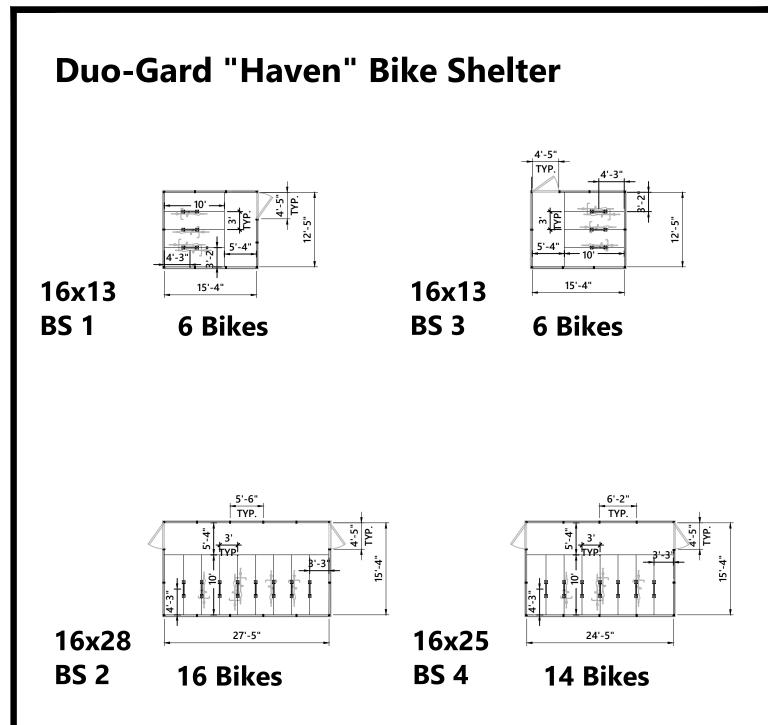
3.4 CLEANING

- A. Clean shelters in accordance with manufacturer's instructions.
- B. Clean inside and outside of shelters immediately after installation.
- C. Do not use harsh cleaning materials or methods that would damage the metal finish or glazing.

3.5 **PROTECTION**

A. Protect installed shelters from damage during construction.

END OF SECTION



Note: Building dimensions are between interior walls.

REQUIRED LONG TERM = 72 42 TOTAL + 30 (in Bldgs) = 72